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2003 DOMESTIC MONITOR PROGRAM

February 2005
DEA-04064

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Drug Intelligence Report

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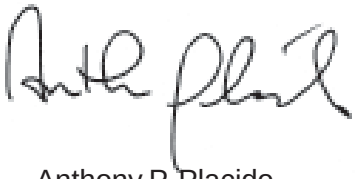
EXECUTIVE SUMMARY

The Drug Enforcement Administration's (DEA) Domestic Monitor Program (DMP) provides data on the price, purity, and geographic source of heroin sold at the retail or street level in 25 U.S. cities. The data contained in this report are based on actual undercover heroin purchases made by the DEA on the streets of these cities.

Since its inception, the DMP has proven to be a valuable indicator for detecting trends in retail-level heroin trafficking. For example, in the early to mid-1980s, the DMP documented the increasing availability of Southeast Asian heroin at the retail level in a number of U.S. cities. In the mid-1990s, data from the DMP revealed significant increases in the amount of South American heroin available at the retail level, particularly in the metropolitan areas of the northeastern United States.

Program-wide data for 2003 confirms that South American produced heroin continues to be the preponderant source of heroin found east of the Mississippi River, while Mexican black-tar and brown-powder heroin clearly dominate the market west of the Mississippi. DMP data for 2003 also documented a continuation of the gradual decline of the South American heroin purity, while its price (average price-per-milligram pure) remained relatively stable since 2002 throughout the program. Additionally, in 2003, DMP data charted the emergence and growth of markets containing multiple heroin types. Detroit, Chicago and St. Louis, in the Midwest; Baltimore and Washington, in the Mid-Atlantic; and Atlanta in the Southeast have all developed into competitive retail marketplaces with two or three types of heroin available.

The DMP remains an important assessment and analytical tool for the DEA, law enforcement, drug policy makers and drug abuse researchers throughout the nation.



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Background

The DMP, a retail-level heroin purchase program, provides data on the prices, purities, and geographic origins of street-level heroin that is available in major metropolitan areas of the United States to Federal, state, and local law enforcement authorities, drug policymakers, and drug-abuse researchers. Each quarter, the DEA's Intelligence Division provides funding for the purchase of retail-level heroin samples in 25 metropolitan areas. Each heroin purchase subsequently undergoes in-depth chemical analyses at the DEA Special Testing and Research Laboratory (SFL1) to determine the purity and, if possible, the geographic source area (signature analysis) of the heroin.[1]

The DMP was initiated in the New York Field Division in 1979. To this day, particular attention is paid to the DMP results for New York City because it remains the nation's largest heroin user market and because much of the white-powder heroin available in east coast markets is obtained there. Between 1979 and 1991, the number of DEA offices that participated in this program fluctuated between 6 and 12. In 1991, the DMP was expanded to include one city in every DEA Field Division. Baltimore, Maryland, was included as a participant in early 1995; Orlando, Florida, was added in late 1996, and El Paso, Texas, in mid-1999. Both San Antonio, Texas, and Richmond, Virginia, were added as participants in early 2003.

The goal of the DMP is to provide Federal and other drug policymakers and drug abuse researchers with information regarding the nature of the domestic heroin problem at the street level. Additional DMP data analysis reveals changes in heroin price and purity, adulterants and diluents, use patterns, marketing practices, availability, and geographic source.

2003 DMP Results: Qualified Samples

The DEA offices in the majority of cities where the DMP is conducted are tasked with making 10 street-level heroin purchases per quarter, or 40 purchases per year. The exceptions are New York City, which makes 20 purchases per quarter or 80 per year; and El Paso, San Antonio, and Richmond, which make 5 purchases each per quarter, or 20 per year. As a result, 980 heroin samples should be purchased throughout the year as part of the DMP; however, the total number of samples included in DMP analysis varies from year to year, based on a variety of factors. For example, some exhibits are determined to contain no controlled substance, some are determined to contain cocaine, or other controlled substance, and some, while containing heroin, do not contain sufficient heroin to allow for geographic analysis. In other instances, the results of the geographic analysis are inconclusive. Such samples are not included in this analysis. Those that are included are deemed "qualified samples," meaning that price, purity, and geographic source data are available for the exhibit. In 2003, 822 qualified samples were purchased. Of those, 470 were classified as South American (SA) heroin; 317 were classified as Mexican (MEX) heroin; 33 were classified as Southwest Asian (SWA) heroin; and 2 samples were classified as Southeast Asian (SEA) heroin.

Nationwide, in 2003, SA heroin samples recorded the highest average purity—41.8 percent; MEX heroin had the lowest—26.3 percent. SWA heroin averaged 27.1 percent pure, and the SEA heroin samples averaged 37.9 percent pure during the year. Across the various types of heroin, price varied widely for cost per milligram pure. SEA samples had the

[1] For an explanation of signature analysis and other terms used in this report, see Appendix A.

lowest average price per milligram pure at $0.44 and SWA samples the highest average price—$0.95. SA heroin averaged $0.77 per milligram pure. MEX heroin price averaged $0.75. The 2003 numbers for purity and price per milligram pure are compared to previous years in Table 1.

The price per milligram pure of SA heroin rose moderately in 2003, while purity levels dropped conversely. The price per milligram pure of MEX heroin rose moderately between 2002 and 2003, while purity levels declined slightly. The number of qualified SEA samples dropped to only two, and due to the small number of both SWA and SEA exhibits, it is difficult to draw trending information based on this data.

2003 DMP Results: City by City[2]

Generally speaking, the heroin market in the United States is divided geographically by the Mississippi River. East of the Mississippi River, particularly in the Northeast where the largest U.S. heroin user population is located, SA heroin dominated the market in 2003, as it has in past years. MEX black tar and, to a lesser extent, MEX brown powder heroin dominated markets west of the Mississippi River. Of the DMP samples that could be classified, 93 percent of those purchased east of the Mississippi River were SA heroin. West of the Mississippi River, 95 percent of the samples purchased were classified as MEX heroin.

Table 1

Heroin Samples: Origin, Purities, and Prices

Heroin Sources	2000	2001	2002	2003
Southeast Asia samples	5	7	10	2
Southeast Asia percent pure	22.0%	18.1%	23.9%	37.9%
Southeast Asia price per milligram pure	$0.73	$0.56	$0.61	$0.44
Southwest Asia samples	26	29	22	33
Southwest Asia percent pure	39.2%	26.5%	29.8%	27.1%
Southwest Asia price per milligram pure	$0.55	$0.42	$0.75	$0.95
Mexico samples	286	344	242	320
Mexico percent pure	24.9%	21.0%	27.3%	26.3%
Mexico price per milligram pure	$0.93	$1.28	$0.70	$0.75
South America samples	355	386	341	468
South America percent pure	51.3%	49.7%	46.0%	41.8%
South America price per milligram pure	$0.72	$0.77	$0.72	$0.77

[2] Appendix B and C contain price and purity data for DMP cities from 2001-2002, respectively.

In 2003, 495 qualified samples were purchased east of the Mississippi River of these 461 were determined to be SA heroin, six samples were MEX heroin, two were determined to be SEA heroin, and 26 were SWA heroin. Chicago purchased eight SWA exhibits, Atlanta purchased seven, Washington, DC, purchased four, and Detroit purchased four. The remaining SWA samples were purchased in Baltimore (1), New York (1), and Richmond (1). Atlanta and Boston each purchased two MEX exhibits; Chicago and Philadelphia purchased one each. Baltimore and Richmond each purchased one of the two reported SEA exhibits.

West of the Mississippi River, 327 qualified samples were purchased in 2003; 311 of them were determined to be MEX heroin. Nine exhibits were determined to be SA heroin and seven exhibits were found to be SWA heroin. The western region SA and SWA heroin samples were all purchased in St. Louis, Missouri, which emerged as a multi-type heroin market in 2003.[3] The SA exhibits purchased in St. Louis averaged 12.9 percent pure, less than one third the purity of the DMP national average for SA of 41.8 percent. The SWA exhibits from St. Louis averaged 23.1 percent pure compared to a national DMP average for SWA of 27.1 percent pure.

The DMP is conducted in 25 distinct metropolitan areas, as opposed to nationwide sampling. Consequently attempts to calculate a national average for price and purity solely from the program's results are misleading, because the sampling reflects local user preferences and market availability. The dynamics of the local heroin market tend to be unique to each metropolitan area. Therefore, any attempt to calculate national averages leads to numbers that would accurately reflect only local trends. More telling than the changes in the estimated national averages were the individual changes in purity and price per milligram pure in the participating cities in 2003.

Atlanta

Heroin availability was stable in Atlanta, where heroin remained a commodity primarily obtained in the central city area known as the "Bluff." In 2003, 29 qualified samples were purchased in Atlanta, 20 of which were SA heroin. Seven samples were determined to be SWA and two were MEX. The average purity of the SA exhibits was 56.8 percent, and cost $1.29 per milligram pure. The SWA exhibits averaged 34 percent pure and cost $1.59 per milligram pure, the highest price for SWA in the nation. The average purity of the MEX samples was 31.3 percent and cost $3.05 per milligram pure. In comparison to 2002 results in Atlanta, the average SA heroin purity level rose slightly and SWA declined, while prices declined by $0.42 and $0.29 per milligram pure respectively.

Baltimore

Heroin use plagues the Baltimore metropolitan area and its outlying suburbs. Both law enforcement and medical officials in Baltimore consider heroin abuse as one of the city's most significant drug problems, second only to crack cocaine. The high purity of heroin at the street level was responsible, at least in part, for a high number of heroin-related emergency room mentions between 2001 and 2002. According to treatment, parole, and probation officials, a large number of incidents occurred among newly released prison inmates and inexperienced users who were unaware of the drugs' increased potency.

[3] In 2002, St. Louis accounted for 18 exhibit purchases, all of which were MEX heroin.

Suburban heroin users—particularly teens and young adults—often travel to Baltimore to purchase heroin. These teens and young adults, as well as urban users, also purchase heroin on numerous corners in the open-air markets of West and East Baltimore. "Raw" (high-purity) heroin was commonly sold in vials, much like crack cocaine, often ranging in purity from over 70 percent to well over 90 percent. "Scramble" (cut, or diluted) heroin, packaged primarily in gelatin capsules and ranging in purity from 10 to 20 percent, was available throughout the city.

In 2003, 26 qualified DMP purchases were made in Baltimore; 24 of them were SA. The SA exhibits ranged in purity from 7.7 percent to 95.8 percent and averaged 35 percent pure. In addition, the SA exhibits had an average price of $0.34 per milligram pure. Of the remaining two exhibits, one was SWA analyzed as 2.8 percent pure, and cost $1.55 per milligram pure—the second highest SWA price in the nation. The final Baltimore exhibit was SEA heroin, analyzed at 20.1 percent pure with a cost of $0.31 per milligram pure. Compared to 2002 data, DMP SA purity rose by 11.4 percent and prices declined slightly.

Boston

Heroin availability in metropolitan Boston, and throughout New England, was widespread in 2003. Due primarily to its growing availability and affordability, the drug has become popular among high-school and college-age youths. SA heroin was sold and routinely distributed in clear or colored glassine or wax packets, with or without markings.

In Boston, 35 qualified samples were purchased in 2003. Of these samples, 33 were determined to be SA heroin. SA heroin in the city averaged approximately 40 percent pure and cost $0.73 per milligram pure. These amounts represent a drop of 10 percent from the 2002 average purity level, and the average price per milligram pure declined by $0.46. Two DMP samples were MEX heroin, and averaged 41.1 percent pure and cost $1.11 per milligram pure. This marks the first time MEX heroin has been purchased through the DMP in Boston. DMP data for 2003 indicate that SA heroin purity and prices in Boston were at an intermediate level in comparison with price and purity levels nationwide. Retail heroin purity and prices in Boston, as recorded by the DMP, have continued a downward trend begun in 2000. Table 2 provides a brief overview of the average SA heroin retail purity and price levels in Boston since 2000.

Table 2

Average South American Heroin Price and Purity in Boston

	2000	2001	2002	2003
Price	$1.28	$1.01	$1.19	$0.73
Purity	60.9%	56.5%	50.3%	40.3%

Chicago

Heroin trafficking and abuse continue at disturbing levels in the Chicago area. According to many available indicators, the heroin problem in Chicago has continued to increase since 2000. The 2002 Drug Abuse Warning Network (DAWN) data show that Chicago led the nation in the estimated number of heroin-related hospital emergency department (ED) mentions for five consecutive years (1997-2002). DAWN data for 2002 also revealed that Chicago led the nation in the rate of heroin ED mentions per 100,000 population. According to the Arrestee Drug Abuse Monitoring Program (ADAM) for 2002, Chicago ranked first among 33 cities for arrestees testing positive for the presence of opiates (26%) and multiple drug (33.8%). Also, according to the Treatment Admissions Data Set, heroin treatment admissions in Illinois, to include Chicago, surged during the late 1990s and continued at an elevated level into 2003.

Heroin from South America continues to dominate Chicago's DMP purchases, and accounted for 21 of the 30 qualified purchases made during 2003. Eight of the purchases made were of SWA origin, and there was a single purchase of MEX heroin. The lone MEX heroin exhibit was the first sample of this classification purchased through the program in several years. Significantly, there were no samples of SEA heroin purchased during 2003, the first time no purchases of this type have been made in more than 15 years.

Results from the DMP show that the purity of the SA heroin exhibits purchased in Chicago during 2003 averaged 16.6 percent and cost $0.45 per milligram pure. The SWA exhibits averaged 18.4 percent pure and cost $0.52 per milligram pure. The MEX exhibit was analyzed as 5 percent pure, the lowest purchased nationwide, and cost $0.85 per milligram pure. Almost all of the exhibits purchased were contained in either foil or plastic packaging. However, two exhibits were contained in plastic bags with logos stamped on them, a practice more commonly encountered in east coast heroin markets, particularly in New York City. Since 2002, Chicago's SA heroin DMP samples declined by 4 percent in average purity and prices rose slightly; SWA sample purity levels remained relatively constant, while average prices increased by $0.13 per milligram pure.

Dallas

In 2003, MEX heroin remained by far the most readily available type of heroin in Dallas, accounting for all of the city's 31 qualified DMP samples. However, SEA heroin had been purchased in the market in both 2001 and 2002; also SA heroin was purchased in 2001. Local investigations indicate that wholesale quantities of SA heroin may still be available in the metropolitan area. In 2003, the 31 MEX exhibits purchased through the DMP in Dallas averaged 13.3 percent pure and cost $0.98 per milligram pure. In comparison, DMP purity levels for MEX heroin dropped from 17.2 percent pure in 2002. Price per milligram pure rose $0.23 between 2002 and 2003 from $0.75 per milligram pure.

Denver

The majority of heroin sales in Denver have traditionally taken place in its lower downtown area, a pattern that continued in 2003. Street level amounts sell for between $100 and $150 per gram. MEX heroin was the only type encountered through the DMP in Denver in 2003, when 32 qualified samples were purchased. Denver's samples ranged from 7.5 to 65.3 percent pure, with an average purity of 18.7 percent. The average cost of these exhibits was $0.81 per milligram pure. Since 2002, DMP prices in the city have declined approximately 20 percent while purity levels rose slightly.

Detroit

Heroin use and abuse continued to be a major problem in the Detroit metropolitan area. Heroin was widely available throughout the city and its densely populated suburbs. Detroit, although a major market for heroin, was also utilized as a transshipment point to other communities in Kentucky, Michigan, and Ohio.

During 2003, the DMP continued to indicate that SA heroin is the most prevalent type found in the city. However, SWA heroin is also readily available; and both MEX and SEA heroin are believed to be trafficked in minimal amounts. In 2003, SA heroin accounted for 30 of the 34 qualified DMP samples purchased in Detroit. Those 30 samples averaged 47.9 percent pure and cost $0.80 per milligram pure. The remaining four DMP exhibits were SWA heroin averaging 48.8 percent pure and costing, on average, $0.52 per milligram pure. DMP SA sample averages in Detroit remained consistent with 2002 results. SWA purity levels rose by seven percent, while price declined by $0.10 per milligram pure.

El Paso

Heroin, though not plentiful, is available in the El Paso metropolitan area and can be purchased city-wide for about $100 per gram. In 2003, 13 qualified samples were purchased in El Paso. Of these, all 13 exhibits were MEX (black tar) heroin, averaging 44.7 percent pure and costing on average $0.40 per milligram pure. While the sample set of qualified exhibits in El Paso is small, the data showed that the price per milligram pure rose by almost 50 percent ($0.13) as compared to the 2002 levels. The average sample purity also rose slightly.

Houston

"Black tar" is the heroin type traditionally encountered in the Houston area at the retail level. That trend continued to be reflected by the DMP in 2003. During 2003, 44 qualified samples were purchased in Houston. All were MEX heroin, averaging 28.2 percent pure, and cost $0.45 per milligram pure. Among the Houston exhibits, purities ranged from 6.1 to 63.5 percent pure. From 2002 to 2003, the average DMP price per milligram pure in the city dropped by approximately 25 percent ($0.19) while purity levels declined slightly.

Los Angeles

Recent reporting indicates that the low price of MEX black tar heroin makes this the preferred heroin type in Los Angeles. In 2003, 34 qualified DMP samples were purchased in Los Angeles. All were MEX heroin, with the majority being black tar, averaging 29.7 percent pure and costing $0.34 per milligram pure. The DMP exhibits ranged in purity from 13.7 to 64.3 percent pure. 2003 data reflected a 3.2 percent rise in purity and a $0.04 rise in price per milligram pure over 2002.

Miami

In 2003, 40 qualified DMP samples were purchased in Miami. All of the samples were SA heroin, averaging 25.8 percent pure, at a cost of $0.90 per milligram pure. Compared with 2002 purities, the average purity of samples declined modestly, while the price per milligram pure rose by 50 percent ($0.29), returning to levels recorded in 2001.

New Orleans

Heroin abuse in New Orleans has risen over the past three years. In 2003, 35 qualified DMP samples were purchased in New Orleans. All the exhibits were determined to be SA heroin, averaging 31.8 percent pure. At $1.62 per milligram pure, the SA heroin samples purchased in New Orleans were slightly less expensive than in 2002, but still averaged the highest price recorded east of the Mississippi.

New York City

New York City is one of the most significant heroin markets and distribution centers in the United States. In 2003, heroin was readily available from criminal elements rooted in the various ethnic groups that comprise the metropolitan New York City's demographic make up. SA heroin remains by far the most common type of heroin encountered by the DMP in New York. To a lesser extent, SWA and SEA heroin are also reported to be available, as well as MEX heroin. Seventy qualified DMP exhibits were purchased in New York City during 2003, 69 of which were SA heroin. Analysis revealed that the SA samples averaged 53.5 percent and cost $0.48 per milligram pure. This represents a drop in SA heroin purity of eight percent from 2002 levels, while prices have risen by $0.12 from what was then the lowest SA price in the nation. The remaining qualified exhibit purchased was SWA heroin with a purity of 47.7 percent and a price of $0.32 per milligram pure.

Table 3: 2003 Heroin Counts, Purities, Prices, Origin, and City by Geographic Region

East	Southeast Asian Heroin			Southwest Asian Heroin			South American Heroin			Mexican Heroin		
	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price
Atlanta				7	34.0%	$1.59	20	56.8%	$1.29	2	31.3%	$3.05
Baltimore	1	20.1%	$0.31	1	2.8	1.55	24	35.0	0.34			
Boston							33	40.3	0.73	2	41.1	1.11
Chicago				8	18.4	0.52	21	16.6	0.45	1	5.0	0.85
Detroit				4	48.8	0.52	30	47.9	0.80			
Miami							40	25.8	0.90			
New Orleans							35	31.8	1.62			
New York City				1	47.7	0.32	69	53.5	0.48			
Newark							40	61.3	0.33			
Orlando							37	35.2	1.14			
Philadelphia							41	59.6	0.60	1	36.5	0.59
Richmond	1	55.6	0.56	1	49.4	1.17	14	54.4	0.82			
San Juan							35	33.7	0.55			
Washington, DC				4	13.5	1.00	22	20.0	0.73			

West	Southeast Asian Heroin			Southwest Asian Heroin			South American Heroin			Mexican Heroin		
	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price
Dallas										31	13.3%	$0.98
Denver										32	18.7	0.81
El Paso										13	44.7	0.40
Houston										44	28.2	0.45
Los Angeles										34	29.7	0.34
Phoenix										38	45.3	0.42
San Antonio										13	8.2	1.97
San Diego										38	44.9	0.25
San Francisco										27	11.1	0.98
Seattle										27	10.4	1.18
St. Louis				7	23.1%	$1.00	9	12.9%	$1.93	14	14.4	1.89
Total	**2**	**37.9**	**0.44**	**33**	**27.1**	**0.95**	**470**	**41.8**	**0.77**	**317**	**26.3**	**0.75**

Report Parameters: Only qualified samples are shown. January 1 to December 31, 2003.

Newark

In 2003, 40 qualified DMP samples were purchased in Newark, all of which were SA heroin. Those samples were analyzed to average 61.3 percent pure and cost $0.33 per milligram pure. This represents a 10 percent drop in average purity from 2002. Still, Newark's average purity level for SA heroin led the nation for the second straight year and the price per milligram pure averaged the lowest in the nation. In 2002, the city's SA samples cost $0.39 per milligram pure, the second lowest nationwide, and had an average purity of 71.4 percent.

Orlando

The heroin type encountered by the DMP in Orlando's heroin market remained unchanged in 2003. Thirty seven qualified DMP exhibits were purchased in 2003—all SA heroin. Those exhibits were analyzed as averaging 35.2 percent pure and costing $1.14 per milligram pure. The 2003 figures represent an 11 percent decrease in SA heroin purity since 2002, while price per milligram pure nearly doubled.

Philadelphia

SA heroin remained the primary heroin type available in Philadelphia during 2003. Although the greater Philadelphia area is generally considered a consumer heroin market, North Philadelphia's street corners specifically attract distributors from locales throughout the city. The increased availability of cheaper, higher purity heroin over the last few years has led to a growing heroin abuse problem throughout the city that now reaches into most areas and socioeconomic backgrounds. The high purity of the heroin allows users to snort it, which may be one of the main reasons why heroin abuse has grown among teens and young adults.

In 2003, DMP purity levels in Philadelphia were among the highest in the nation. An analysis of its 40 qualified exhibits revealed 39 to be SA heroin. The average purity of the SA samples was 59.6 percent pure and the average cost was $0.60 per milligram pure. Since 2002, SA exhibit purity levels have declined by nearly seven percent and prices have risen by $0.18. A single sample of MEX heroin was purchased in Philadelphia in 2003, marking the first acquisition of a MEX heroin DMP exhibit in the city. The sample was analyzed as 36.5 percent with a price of $0.59 per milligram pure.

Phoenix

MEX heroin exhibits accounted for all 38 qualified DMP samples bought in Phoenix during 2003. Those exhibits were analyzed to average 45.3 percent pure. This purity level was a slight drop from 2002, but still led the nation for MEX heroin in 2003. Prices for Phoenix's DMP samples averaged $0.42 per milligram pure. Table 4 provides a brief overview of average heroin purity and price levels in Phoenix since 2000.

Table 4

Average Mexican Heroin Price and Purity in Phoenix

	2000	2001	2002	2003
Price	$0.37	$0.34	$0.51	$0.42
Purity	41.3%	41.3%	48.9%	45.3%

Richmond

Richmond joined the DMP in early 2003. Sixteen qualified samples were acquired in Richmond. Fourteen of these exhibits were analyzed as SA heroin. Additionally, one sample each of SEA heroin and SWA heroin was purchased. The SA exhibits averaged 54.4 percent pure and cost $0.82 per milligram pure. The single SEA exhibit was analyzed at 55.6 percent pure and cost $0.56

per milligram pure. The SWA heroin sample was 49.4 percent pure and cost $1.17 per milligram pure. While the sample set of qualified SEA and SWA exhibits in Richmond was small, the reported purity levels established the city as the national 2003 DMP purity leader for both SEA and SWA heroin.

San Antonio

San Antonio is the latest addition to the DMP, and has participated in the program since January 2003. During the three quarters in which purchases were conducted, 13 qualified samples were purchased in San Antonio. All were determined to be MEX heroin. The exhibits were analyzed to average 8.2 percent pure and to cost $1.97 per milligram pure. The average purity level for MEX heroin was the lowest in the western region and the second lowest nationwide.[4] The price per milligram pure was the second highest reported in the 2003 DMP results.[5]

San Diego

Heroin encountered in the San Diego metropolitan area is almost exclusively MEX black tar, which was readily available in San Diego and Imperial Counties in 2003. Mexican brown powdered heroin is also reportedly available, although not with the same frequency. Recent reporting on trafficking trends indicates that southern San Diego, National City, and Chula Vista are the major retail locations in the metropolitan area. Additionally, although SA heroin reportedly transits the San Diego area en route to the east coast; this activity has not produced a notable effect on the retail market in the metropolitan area.

MEX heroin accounted for all 38 qualified DMP samples purchased in San Diego during 2003. Those exhibits were analyzed to be 44.9 percent pure, which qualified as the second highest average in the western region. MEX heroin DMP sample purity in San Diego dropped slightly from 47.9 percent pure in 2002. Analysis of the 2003 San Diego DMP samples determined their cost to be $0.25 per milligram pure, the cheapest heroin of any type recorded in the nation, for the second year in a row.

San Francisco

MEX heroin remained readily available throughout San Francisco's Mission, Tenderloin, Bayview, Bernal Heights, and Portrero Hill Districts. Supplies were also readily available in Richmond (in Contra Costa County) and Oakland (in Alameda County.) User quantities of black tar heroin (the heroin type of choice throughout the region) were usually packaged in double plastic bags. The DMP results reflected the fact that all of the 27 qualified samples purchased in San Francisco in 2003 were determined to be MEX heroin. Those exhibits were analyzed to average 11.1 percent pure and to cost $0.98 per milligram pure. San Francisco's DMP price and purity levels for 2003 remained consistent with 2002 figures.

San Juan

Heroin was readily available throughout Puerto Rico in 2003, and was the most widely abused drug in eastern Puerto Rico, particularly in the Fajardo area. The most common areas for buying heroin were the open air markets found in the public housing projects and barriadas (marginal neighborhoods). Users in San Juan primarily inject the drug intravenously;

[4] A single MEX heroin sample purchased in Chicago was analysed as 5 percent pure.

[5] Two MEX heroin samples purchased in Atlanta had an average price of $3.05 per milligram pure.

however, a small number of addicts snorted the drug, sometimes mixed with cocaine, in a combination known as a "spitball."

SA heroin dominates the market in Puerto Rico. All 35 of the qualified DMP exhibits in 2003 were determined to be SA heroin. They averaged 33.7 percent pure and cost $0.55 per milligram pure. Average SA heroin sample purity declined slightly between 2002 and 2003, while average price per milligram pure rose by $0.07.

Seattle

MEX heroin dominated the market in Seattle in 2003, accounting for all 27 of the qualified samples purchased there. Those exhibits were analyzed to average 10.4 percent pure, the second lowest in the western region and among the lowest purity levels in the nation. The average cost was $1.18 per milligram pure, a price rise of $0.29 per milligram pure from 2002 levels.

St. Louis

Heroin abuse and trafficking continued to be a growing concern in the St. Louis area in 2003. The heroin market in St. Louis blossomed into one of the most diverse multi-type markets in 2003, with three heroin types available. Mexican black tar heroin was readily available in the depressed urban areas of St. Louis, accounting for 14 of the 30 qualified exhibits purchased by the DMP in 2003. Those exhibits were analyzed to average 14.4 percent pure and cost $1.89 per milligram pure, the third highest priced MEX heroin purchased through the DMP during 2003.[6] Additionally nine exhibits of SA heroin and seven exhibits of SWA heroin were also purchased through the DMP in St. Louis. The purchases of SA heroin were a first for the DMP in the St. Louis market. The exhibits averaged 12.9 percent pure and cost $1.93 per milligram pure, the lowest purity SA heroin and the highest average retail price for SA heroin in the nation. SWA heroin had not been purchased in the city since 1995. The 2003 SWA samples averaged 23.1 percent pure and cost $1.00 per milligram pure.

Washington, DC (District of Columbia)

Washington, DC, has a well-entrenched heroin market. The city occupies a key point on the east coast heroin trafficking route. The 14th Street corridor in northwest Washington is a magnet for suburban users purchasing high-purity heroin. The eastern part of the city is frequented more by well-established sellers and long-term addicts. In 2003, law enforcement officials noted that distributors in these areas cater to customers who spend several hundred dollars at a time. Distributors in other areas of the District—particularly the eastern quadrants—continue to supply heroin that ranges in purity from less than 10 percent to nearly 25 percent.

In 2003, 26 qualified exhibits were purchased in Washington DC. Of that number, 22 were SA heroin and 4 were SWA. The 22 SA heroin samples averaged 20 percent pure and cost $0.73 per milligram pure. The four SWA heroin exhibits averaged 13.5 percent and cost an average of $1.00 per milligram pure. Washington's SA heroin samples average price and purity were relatively stable between 2002 and 2003. The average SWA heroin sample purity levels declined by 8.7 percent, while the price per milligram pure doubled.

[6] Two MEX heroin samples purchased in Atlanta had an average price of $3.05 per milligram pure.

Highest and Average Lowest Purity by City and Source

In 2003, the DMP cities with the highest average purities for each area of origin are shown in Table 5. The cities with the lowest average purities for each area of origin are shown in Table 6.

Table 5

Cities with the Highest Average Percent of Purity by Source Area - 2003

	Source	Average Purity
Phoenix	Mexico	45.3%
Newark	South America	61.3
Richmond	Southeast Asia	55.6
Richmond	Southwest Asia	49.4

Note: Richmond had one DMP sample each of SEA and SWA heroin in 2003.

Table 6

Cities with the Lowest Average Percent of Purity by Source Area - 2003

	Source	Average Purity
Chicago	Mexico	5.0%
St. Louis	South America	12.9
Baltimore	Southeast Asia	20.1
Baltimore	Southwest Asia	2.8

Note: Baltimore had one DMP sample each of SEA and SWA heroin in 2003. Chicago had one DMP sample of MEX heroin in 2003.

Geo-Probes: Views from New Cities

Since 2001, DEA has conducted an initiative within the DMP called Geographical Probes, or Geo-Probes. The mission of the Geo-Probes is to gain additional intelligence about existing and emerging heroin markets in areas outside the designated DMP cities. In order to accomplish this, DEA makes funds available for heroin sample purchases in selected cities across the United States. In 2003, those cities were: Albuquerque, New Mexico; Cincinnati, Ohio; Honolulu, Hawaii; Laredo and McAllen, Texas; Pittsburgh, Pennsylvania; Providence, Rhode Island; Portland, Maine; and Salem, New Hampshire.

Geo probe data, while important in identifying emerging threats and markets, is not calculated as part of the national average data, nor compared against regular DMP cities, due to a lack of equivalent samples.

Albuquerque

The Albuquerque metropolitan area experienced an increase in heroin drug abuse throughout 2003. In response, a Geo-Probe was conducted in Albuquerque in August 2003. Five qualified DMP heroin exhibits were purchased in the city and all were analyzed as MEX heroin. The five samples averaged 45.6 percent pure and cost, on average, $0.16 per milligram pure.

Cincinnati

Heroin users throughout the northeast Kentucky Region, to include eight overdose victims, purchased the drug in an inner-city community of Cincinnati, known as Over-the-Rhine. Predicated on an unprecedented rash of heroin-related deaths in Campbell and Kenton County, Kentucky, the Cincinnati Resident Office conducted a Geo-Probe

between April and June 2003. Historical investigations showed that Mexican brown powder heroin was the dominant type of heroin available in the region, and that this type was primarily sold in urban Cincinnati.

Five qualified heroin exhibits were purchased through the Geo Probe program in Cincinnati during 2003, four of which were determined to be SA heroin. The final sample was identified as Mexican brown powder. The SA heroin averaged 49.1 percent pure and $0.91 per milligram pure. The Mexican sample had a purity of 9.9 percent, and cost $3.42 per milligram pure.

The average purity level for the SA heroin was substantially higher than MEX heroin traditionally encountered in northern Kentucky. The abuse of such high-potency heroin, by users accustomed to a much less pure version, may have contributed to the high number of overdose incidents.

Honolulu

In response to reports of a black tar heroin problem in Hawaii, a Geo-Probe was conducted in Honolulu in July and August 2003. This probe marked the first instance of DMP purchases made outside of the continental United States. Black tar heroin is popular in the islands because of the price—approximately $100 to $200 per gram. This price is substantially cheaper than that for white powder heroin, which is very rarely encountered, but which is sold locally for approximately double the price of black tar. The Geo-Probe resulted in the purchase of five exhibits, three of which were qualified samples determined to be MEX heroin averaging approximately 51.3 percent pure. The samples cost, on average, $0.95 per milligram pure. Honolulu's average price was comparable to San Francisco's, but the purity levels were more than four times as high as San Francisco's, and higher than other Pacific coast DMP cities.

Laredo and McAllen

In mid-August 2002, four individuals, three of them teenagers, died of heroin overdoses. The youngest victim, a 13-year-old girl, tested positive for cocaine, opiates, and marijuana. All of the victims lived in the same area of Laredo. Two of the victims were known heroin users, and one still had a needle in his arm when he died. This spate of overdose deaths led to the initiation of a Geo-Probe in this area. This probe was melded into a multiagency drug investigation conducted by the DEA Laredo District Office (LDO), the Laredo Police Department and other agencies participating in a regional drug task force in October 2002. This Geo-Probe extended into 2003, and was expanded to include a companion Geo-Probe in the McAllen area. A total of 13 heroin purchases were made between January and August 2003, 12 of which were determined to be qualified samples of MEX origin, ranging from 3.5 to 65.8 percent pure. The remaining unqualified exhibit contained no heroin. The MEX heroin samples averaged 50.7 percent pure and cost on average $0.45 per milligram pure. Recent reporting from the LDO indicates that purities in the 50-percent-plus range would likely be lethal for users accustomed to less pure MEX heroin.

Pittsburgh

Press reporting from the Pittsburgh area indicated that "lethal" heroin killed 13 people during 2002, primarily in western Pennsylvania, more than double the number who died from heroin overdoses in 2000. In response to several overdose deaths in western Pennsylvania, a Geo-Probe was conducted in April 2003.

During the Geo-Probe, five heroin purchases were made, all of which were determined to be SA heroin. They averaged 52.9 percent pure and cost, on average, $0.62 per milligram pure. In comparison, DMP purchases in Philadelphia averaged 59.6 percent pure and cost $0.60 per milligram pure. Reporting on Pittsburgh trafficking

indicated that there may have been a New York City-based source that supplied Allegheny County. In New York City, SA heroin averaged 53.5 percent pure and sold for $0.48 per milligram pure in 2003.

Providence and Portland

In order to gather intelligence on the street-level heroin trade, Geo-Probes were conducted in Providence, Rhode Island, and Portland, Maine, between June and September 2003. Five heroin exhibits were purchased in Providence, four of which were qualified samples of SA origin. The SA heroin averaged 50.9 percent pure and cost $0.74 per milligram pure. The remaining unclassified exhibit was analyzed as 78.5 percent pure.

The Portland Geo-Probe resulted in three qualified SA heroin exhibits averaging 55.1 percent pure; however, two of the samples averaged 73.7 percent pure with the final purchase having a purity of only 18 percent. Both the high purity level and the wide extremes between the samples suggested broad fluctuations in the market that could be dangerous for both new and experienced users.

Salem

In response to numerous heroin overdoses in 2003, a Geo-Probe was initiated in Salem and Manchester, New Hampshire, in June 2003. The Geo-Probe confirmed the availability of high-purity SA heroin and the expansion of the heroin market from southern New England into New Hampshire. Two SA heroin exhibits purchased in Manchester averaged 78 percent pure and cost $0.64 per milligram pure. A single unclassified exhibit purchased in Salem was analyzed as 45.9 percent pure.

Appendix A: Definitions

Adulterants: Pharmacologically active substances, such as caffeine, mono-acetylmorphine, procaine, and quinine, which remain in, or are added to, the final heroin product at the completion of the heroin conversion process.

Composite Samples: A limited number of samples can be identified as being part of the same batch and/or as having been purchased from the same dealer(s), based on laboratory analyses and the date and location of the purchases. Samples of this type are combined to form a composite.

Diluents: Pharmacologically inactive substances, such as lactose, mannitol, starch, and sucrose, added to increase bulk.

Heroin Signature Analysis: A program developed by the DEA to identify the geographic source area of a heroin sample. Heroin Signature Analysis is based on an exhaustive chemical profile of authentic samples acquired from each of the four major heroin source areas: South America, Mexico, Southeast Asia, and Southwest Asia.

Heroin Signature Classification: The result of heroin signature analysis. Classifications currently defined include South American (SA), Mexican (MEX), Southeast Asian (SEA), and Southwest Asia (SWA) heroin. Samples meeting these classifications are referred to as qualified samples. When the results of a signature analysis are inconclusive, the sample may be listed as “unknown” or “insufficient weight.”

Insufficient Weight: A sample of heroin that is too small for signature analysis. Generally, an exhibit should weigh at least 1 gram net, including diluents and adulterants. This amount ensures that there are at least 45 milligrams of pure heroin available for signature analysis.

Net Weight: The total weight of the heroin exhibit, including diluents and adulterants, excluding its packaging.

Price Per Milligram Pure: The price of the sample divided by the pure weight expressed in milligrams.

Pure Weight: The weight of the pure heroin determined by multiplying the purity of a sample by its net weight.

Purity: The amount of heroin present compared to all other substances in the sample. Purity is expressed as a percent.

Qualified Sample: A heroin sample that is able to be analyzed and classified by the SFL1 for source.

Unknown: A sample of heroin analyzed by the STRL, but for which the result of the analysis does not match any of the standard classifications (See Heroin Signature Classification).

Appendix B: 2001 Heroin Counts, Purities, Prices, and Origin by City

	Southeast Asian Heroin			Southwest Asian Heroin			South American Heroin			Mexican Heroin		
	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price
Atlanta				1	58.0%	$.1.72	27	51.0%	$1.52			
Baltimore				6	18.3	0.23	25	26.0	0.33			
Boston							30	56.5	1.01			
Chicago	2	20.7%	$0.45	8	18.6	0.51	17	19.0	0.69			
Dallas	5	17.0	0.60				1	21.3	0.36	37	12.2%	$1.34
Denver										35	17.7	0.97
Detroit				3	59.6	0.23	12	52.5	0.68			
El Paso										16	42.5	0.44
Houston							1	86.8	0.24	38	9.0	1.55
Los Angeles										30	16.5	0.72
Miami							32	20.8	0.96			
New Orleans				1	45.4	0.37	28	39.3	2.32			
New York City							49	58.2	0.47	2	1.3	11.42
Newark							43	70.5	0.34	1	69.4	0.24
Orlando							38	50.8	0.72			
Philadelphia							37	73.3	0.39			
Phoenix										36	41.3	0.34
Richmond												
San Antoino												
San Diego										40	45.4	0.21
San Francisco										36	10.1	1.40
San Juan							36	46.0	0.34			
Seattle										30	7.8	1.39
St. Louis										42	15.4	3.17
Washington, DC				11	21.0	0.46	14	35.4	0.81	1	24.2	0.52
Total	**7**	**18.1**	**0.56**	**30**	**25.7**	**0.44**	**390**	**49.3**	**0.77**	**344**	**21.0**	**1.28**

Report Parameters: Only qualified samples are shown. January 1 to December 31, 2001.

Appendix C: 2002 Heroin Counts, Purities, Prices, and Origin by City

	Southeast Asian Heroin			Southwest Asian Heroin			South American Heroin			Mexican Heroin		
	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price	Number of Samples	Purity	Price
Atlanta	1	61.4%	$0.96	4	38.0%	$1.88	29	52.4%	$1.71			
Baltimore				2	14.2	0.33	24	23.6	0.38			
Boston							27	50.3	1.19			
Chicago	4	20.8	0.71	4	19.8	0.39	19	20.4	0.43			
Dallas	4	18.0	0.46							29	17.2%	$0.75
Denver										23	18.4	1.12
Detroit				4	41.7	0.62	12	45.8	0.80			
El Paso										7	40.3	0.27
Houston										39	28.2	0.64
Los Angeles										28	26.5	0.30
Miami							29	29.4	0.61			
New Orleans				1	40.0	1.14	22	30.4	1.65			
New York City				1	56.8	0.23	60	61.5	0.36			
Newark							27	71.4	0.39			
Orlando							29	46.1	0.63			
Philadelphia							24	66.3	0.42			
Phoenix										29	48.9	0.51
Richmond												
San Antonio												
San Diego										30	47.9	0.24
San Francisco										22	12.1	0.99
San Juan							27	36.7	0.48			
Seattle										16	10.5	0.89
St. Louis										18	13.8	1.54
Washington, DC	1	22.7	0.46	6	22.2	0.47	12	20.8	0.79			
Total	**10**	**23.9**	**0.61**	**22**	**29.8**	**0.75**	**341**	**46.0**	**0.72**	**241**	**27.3**	**0.70**

Report Parameters: Only qualified samples are shown. January 1 to December 31, 2002.


U.S. Department of Justice
Drug Enforcement Administration